

### REMARKS

#### In the Claims:

Claims 14-29 remain in this application. Claims 23-25 have been amended. Claims 1-13 have been canceled. New claims 26-29 have been added.

Claims 23-25 have each been amended to correct the preamble. The preamble of each of these claims previously erroneously recited "The method" and have been corrected to recite "The silicon-on-insulator structure."

#### Claim Rejections Under 35 U.S.C. 102(b):

Claims 14-16 and 18-25 were rejected under 35 U.S.C. 102(b) as being anticipated by Voldman (U.S. 5,923,067) (hereinafter "Voldman").

Voldman fails to disclose two compensated regions adjacent an insulator and aligned with the source and drain regions, and an uncompensated region between the two compensated regions aligned with the channel region, as is recited in claim 14. The Examiner characterized regions 152(a) and 152(b) of Figure 10a of Voldman as the compensated regions recited in claim 14. However, while there is some overlap between region 152(b) and the source/drain region above it, region 152(b) is not aligned with the source/drain region, and the area between 152(a) and 152(b) is not aligned with the channel region. Rather than being aligned, as recited in claim 14, Figure 10a of Voldman shows region 152(b) as offset compared to the source/drain region above. Columns 7 and 8 of Voldman, which describe Figure 10a, similarly provide no indication that region 152(b) is aligned with the source/drain region above. As Voldman fails to disclose each limitation recited in claim 14, the rejection is unsupported in the art and should be withdrawn.

As claims 15, 16, and 18-25 depend from claim 14, Voldman fails to disclose the limitations of these claims as well.

Claim Rejections Under 35 U.S.C. 103(a):

It appears that claims 14-16 and 18-25 were rejected under 35 U.S.C. 103(a) as being obvious over Voldman in view of Dennen (U.S. 5,814,869) (hereinafter "Dennen") and/or in view of Vinal (U.S. 5,369,295) (hereinafter "Vinal"), and the response herein is directed to such a rejection. While the Examiner states at page 2 of the Office Action that claims 14-16 and 18-25 are simply rejected as obvious over Dennen, the text of the rejections seem to be making rejections based on combinations of Voldman with Dennen and/or Vinal.

Appropriate correction is requested is Applicants are in error.

Because the references, alone or in combination, do not disclose or suggest every limitation recited in claim 14, the rejection is unsupported in the art and should be withdrawn. The references fail to disclose two compensated regions adjacent an insulator layer and aligned with the source and drain regions, and an uncompensated region between the two compensated regions aligned with the channel region.

As stated above, Voldman fails to disclose or suggest compensated regions aligned with the source and drain regions, with an uncompensated region between the compensated region and aligned with the channel region.

Dennen similarly does not disclose such an arrangement. Dennen teaches several embodiments. None of them disclose or suggest the two compensated regions and uncompensated region recited in claim 14, as is shown in more detail below:

*Embodiments shown in Figures 1, 2a, 3, 16, and 17A-D of Dennen:*

Each of the embodiments shown and described in Figures 1, 2A, 3, 16, and 17A-D of Dennen includes a **single** compensation region that extends beneath **all** of the source, drain,

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and channel, rather than the two compensation regions aligned with the source and drain regions and uncompensated region between the two that are recited in claim 14. Thus, armed with this knowledge, one of skill in the art would not be motivated to form two compensation regions aligned with the source and drain regions, with an uncompensated region between them, as is recited in claim 14.

*Embodiment in Figure 2B of Dennen:*

The embodiment of Figure 2B of Dennen includes a **compensation** region 22 between the two compensation regions 37 and 38 aligned with the channel, not an **uncompensated** region as is recited in claim 14. Thus, the embodiment of Figure 2B teaches away from the structure recited in claim 14. Armed with this teaching one of skill in the art would include a compensation region rather than the uncompensated region that is recited in the claim.

*Embodiments in Figures 4-6 of Dennen:*

Figures 4-6 of Dennen do not include compensation regions aligned with source and drain regions, as is recited in claim 14. Rather, there are simply source and drain regions 23, 24, without compensation regions. Thus, the embodiments of Figures 4-6 would not lead one of skill in the art to modify Voldman to result in the structure recited in claim 14.

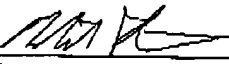
Vinal similarly fails to disclose or suggest the arrangement of two compensated regions aligned with the source and drain regions and an uncompensated region between the two compensated regions aligned with the channel region.

Thus, because the cited references, alone or in combination, fail to disclose or suggest the arrangement of two compensated regions aligned with the source and drain regions and an uncompensated region between the two compensated regions aligned with the channel region, the rejection is unsupported in the art and should be withdrawn.

As claims 15, 16, and 18-25 depend from claim 14, the rejections of these claims should be withdrawn as well.

Respectfully submitted,

Date: January 26, 2006

  
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CERTIFICATE OF TRANSMISSION  
(37 C.F.R. § 1.8(a))

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